WHAT IS CLAIMED IS:

1. A method of resolving photoelectron coupling that results from an operation of a staggered charge-coupled device inside a scanner, wherein the staggered charge-coupled device at least includes an optical sensor group comprising of an optical sensor array and a neighboring optical sensor array for scanning pixels, the method comprising the steps of:

recording the quantity of photoelectrons transferred between a first quantity of photoelectrons captured by the optical sensor array and a second quantity of photoelectrons captured by the neighboring optical sensor array during a scanning time interval t; and

subtracting the quantity of transferred photoelectrons from the first quantity of photoelectrons captured by the optical sensor array to obtain the correct quantity of photoelectrons captured by the optical sensor array during the scanning time interval t so that correct brightness value for pixels scanned by the optical sensor array is obtained.

2. The method of claim 1, wherein the method of measuring the quantity of transferred photoelectrons comprising the sub-steps:

recording a difference in the quantity of photoelectrons produced due to exposure between the first quantity of photoelectrons captured by the optical sensor array and the second quantity of photoelectrons captured by the neighboring optical sensor array; and

multiplying the difference in the quantity of photoelectrons and a photoelectron mobility constant to obtain the quantity of transferred photoelectrons.

3. A method of resolving photoelectron coupling that results from the operation of a staggered charge-coupled device inside a scanner, wherein the staggered charge-coupled

device at least includes an optical sensor group comprising of an optical sensor array and a neighboring optical sensor array for scanning pixels, the method comprising the steps of:

registering a functional value $N(n,t)$ for a first quantity of photoelectrons captured by the optical sensor array and a functional value $N(n+M,t)$ for a second quantity of photoelectrons captured by the neighboring optical sensor array during a scanning time interval t, finding the quantity of photoelectrons transferred between the first quantity of photoelectrons and the second quantity of photoelectrons using a formula: $K*[N(n+M,t)-N(n,t)]$, wherein K is a photoelectron mobility constant relating a coupling between the optical sensor array and its neighboring optical sensor array and M is a line difference between the optical sensor array and its neighboring optical sensor array; and

using the quantity of transferred photoelectrons between the first quantity of photoelectrons and the second quantity of photoelectrons to obtain a calibrating value $N'(n,t)$ for the quantity of photoelectrons obtained during the scanning time interval t where the calibrating value $N'(n,t)$ is given by a formula: $N'(n,t) = N(n,t)-K*[N(n+M,t)-N(n,t)]$, and using the calibrating value $N'(n,t)$ to correct a brightness value of the pixels scanned by the optical sensor array.

4. A method of resolving photoelectron coupling that results from an operation of a staggered charge-coupled device inside a scanner, wherein the staggered charge-coupled device at least includes an optical sensor group comprising of an optical sensor array and a neighboring optical sensor array for scanning pixels, the method comprising the steps of:

registering a functional value $N(n,t)$ for a first quantity of photoelectrons captured by the optical sensor array and a functional value $N(n-M,t)$ for a second quantity of photoelectrons captured by the neighboring optical sensor array during a

scanning time interval t, finding a quantity of photoelectrons transferred between the first quantity of photoelectrons and the second quantity of photoelectrons using a formula: K*[N(n-M,t)-N(n,t)], wherein K is a photoelectron mobility constant relating the coupling between the optical sensor array and its neighboring optical sensor array and M is a line difference between the optical sensor array and its neighboring optical sensor array; and

using the quantity of transferred photoelectrons between the first quantity of photoelectrons and the second quantity of photoelectrons to obtain a calibrating value N'(n,t) for the quantity of photoelectrons obtained during the scanning time interval t where the calibrating value N'(n,t) is given by a formula: N'(n,t) = N(n,t)-K*[N(n-M,t)-N(n,t)], and using the calibrating value N'(n,t) to correct a brightness value of the pixels scanned by the optical sensor array.

5. A method of resolving photoelectron coupling that results from an operation of a staggered charge-coupled device inside a scanner, wherein the staggered charge-coupled device at least includes an optical sensor group comprising of an optical sensor array and a neighboring optical sensor array for scanning pixels, the method comprising the steps of:

registering a functional value N(n,t) for a first quantity of photoelectrons captured by the optical sensor array and a functional value N(n+M,t) for a second quantity of photoelectrons captured by the neighboring optical sensor array during a scanning time interval t, finding a first calibrating value N'(n,t) for the photoelectrons captured by the optical sensor array using a formula: N'(n,t) = N(n,t)-K*[N(n+M,t)-N(n,t)], where the first calibrating value N'(n,t) serves to correct a brightness value of the pixels scanned by the optical sensor array; and

finding a second calibrating value $N'(n+M,t)$ for the photoelectrons captured by the neighboring optical sensor array using a formula: $N'(n+M,t) = N(n+M,t) - K*[N(n,t)-N(n+M,t)]$, where the second calibrating value $N'(n+M,t)$ serves to correct a brightness value of the pixels scanned by the neighboring optical sensor array;

wherein K is a photoelectron mobility constant relating the coupling between the optical sensor array and its neighboring optical sensor array and M is a line difference between the optical sensor array and its neighboring optical sensor array.